AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1-10. (cancelled)

11. (currently amended) A method for making a composite structure, the method comprising:

providing a forming tool defining a curved cavity;

providing a flat first sheet metal layer comprising a superplastically formable material;

adhering a metal foam precursor layer to said flat first sheet metal layer to form a precursor structure, said precursor layer comprising a mixture of metal powder and a blowing agent;

disposing said precursor structure within said forming tool curved cavity;

heating said precursor structure to a temperature sufficient for superplastic forming within said forming tool curved cavity;

applying hydrostatic pressure to one side of said superplastically deformable material within said forming tool cavity;

superplastically forming said precursor structure after adhering said metal foam precursor layer within said forming tool curved cavity; and

heating said formed precursor structure to a foaming temperature sufficient to foam said metal foam precursor portion and to fuse the resultant metallic foam to said flat first sheet metal layer within said forming tool curved cavity; wherein the resultant metallic foam is fused to said flat first sheet metal layer after said superplastic forming of said flat first sheet

metal layer into a curvilinear shape which mates with a curved shape defined by the forming tool curved cavity.

12. (original) The method of Claim 11, wherein said metal powder comprises a metal powder alloy.

13. (currently amended) The method of Claim 11, wherein said flat first sheet metal comprises a superplastically formable material.

14. (currently amended) The method of Claim 12, wherein said flat first sheet metal portion comprises aluminum.

15. (cancelled)

16. (currently amended) The method according to Claim 12 further comprising coupling a second flat sheet metal layer to the foam precursor.

17. (currently amended) A method for making energy absorbing padding for use in vehicles, the method comprising:

providing a forming tool defining a curved cavity;

providing a flat first aluminum sheet metal having a perimeter profile, an upper surface, and a lower surface;

adhering a metal foam precursor portion to a surface of said ~~foam~~ flat first aluminum metal sheet to form a first energy absorbing precursor structure, said foam precursor portion comprising a mixture of aluminum powder and a blowing agent of TiH_2;

adhering a flat second aluminum sheet metal to said metal foam precursor portion to form a second energy absorbing precursor structure;

disposing said precursor structure within said forming tool curved cavity;

heating said second precursor structure to between about 450 degrees C and about 600 degrees C within said forming tool curved cavity;

applying gas pressure to said second energy absorbing precursor structure so as to superplastically form said energy absorbing precursor structure to a desired curvilinear shape within said forming tool curved cavity;

heating said precursor structure to a foaming temperature sufficient to foam said metal foam precursor within said forming tool curved cavity; and

sustaining the temperature of said precursor structure at foaming temperature for a time sufficient to foam said metal foam precursor portion into a desired shape and to fuse the resultant metallic foam to both said first and said second flat aluminum metal sheets within said forming tool curved cavity;

wherein said step of applying gas pressure to said second energy absorbing precursor is after said step of adhering a metal foam precursor portion.